

## NETWORK PERFORMANCE MONITORING AND RESTORATION BASED ON TRANSMISSION CODE VIOLATIONS

### ABSTRACT OF THE DISCLOSURE

A network element (NE) in a communications network decodes a data stream received over a communication link. Upon synchronization with the data stream, the NE determines a performance metric for the link based on a number of transmission code violations. In response to the performance metric exceeding a predetermined threshold, the NE commands the selection of a different link to carry the data stream via a switch signal. The switching or rerouting of signals may occur between a single pair of NEs (e.g., point-to-point span) or in a more complex topology having a plurality of interconnected NEs.